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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/253,048	02/19/1999	YASUHIITO INAGAKI	9792909-4094	5170

7590 03/20/2002

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EXAMINER

MARKOFF, ALEXANDER

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 03/20/2002

24

Please find below and/or attached an Office communication concerning this application or proceeding.

11/17/24

<b>Office Action Summary</b>	Application No. 09/253,048	Applicant(s) INAGAKI ET AL.	
	Examiner Alexander Markoff	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2001.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-18 and 20-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Continued Prosecution Application*

1. The request filed on 10/16/01 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/253,048 is acceptable and a CPA has been established. An action on the CPA follows.

### *Election/Restrictions*

2. Claims 1-9 and 19 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 11.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 10-18 and 20-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Applicants amended the claims to recite that the polymer used for obtaining the cleaning agent for the method of the invention is a waste material.

It is not clear what is referenced as a waste material and how the use of this term limits the claim. Which criteria should meet the polymer to be referenced as a waste material? What is a waste (useless or worthless) for one, is a needed material for another. Does this term requires any specific properties of the polymer?

***Claim Rejections - 35 USC § 102 and 103***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 10-18 and 20-25 are rejected under 35 U.S.C. 102(b, e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over any one of EP 818,420 EP 818,474, Carpenter et al (5,725,780), Suzuki (5,723,363), Blankenship et al (5,304,707), Argabright et al (4,397,748), Helke (4,237,004), Bahr et al (4,131,563), Matsubara (4,645,698 and 4,686,776), Misaka et al (4,500,652), Walker et al (4,425,463), Heyl et al (5,639,378), Turner et al (4,425,461), Isohata (5,789,076), and Derwent Abstract 1997-490834.

All these references teach the use of the cleaning agent as claimed in different cleaning processes. All these references show that the agents used in the claimed method were notoriously well-known in the art. The cited references teach the use of the agents to absorb different substances in different applications, such as treating, of solid wastes, different, liquids, including body fluids, processing waters in different industries, drilling fluids, gases, moisture, etc.

The claims are directed to a plurality of different, not related methods comprising conventional manipulative steps. All these methods are combined only by the use of the specific cleaning agents, obtained by modifying conventional polymers.

However, the use of these agents for different cleaning applications, as well as modifying the conventional resins by acids or bases was conventional in the art as it is evidenced by the cited references.

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The Examiner's position is that the claims either anticipated or obvious over the cited references.

As to the term "waste":

EP 818,420 and EP 818,474 are applied this time. These references explicitly use the term "waste".

As to the references which do not use the term "waste":

The references recite the claimed polymers. The claims are not directed to the method of making the cleaning agent or the polymers. It is not clear how this term differentiate the same chemicals materials and the method of their use. The fact that some one can consider the polymer as useless or waste, does not change the polymer. The cited references do not exclude the use of polymers which someone would considered as useless.

Alternatively, it would have been obvious to an ordinary artisan at the time the invention was made to use the polymers which some one considers as "waste" with reasonable expectation of success in order to reduce the amount of waste materials and recycle existing polymers because the polymers are the same compounds and it is conventional and desired to reprocess and recycle the needed compounds.

### ***Response to Arguments***

10. Applicant's arguments filed 8/29/01 have been fully considered but they are not persuasive. The applicants argue that the prior art does not teach the use of waste materials. This argument was addressed in the rejections above.

The applicants filed the certified translation of the priority documents. The rejection over Inagaki et al is withdrawn.

The applicants argue that Misaka teaches the use of the claimed modified polymers in anion exchange resins, not in cation exchange resins.

The examiner would like to note that this argument is more specific than the claims, because the claims are not limited to the use of specific exchange resins.

The Applicants argue that some of the cited references teach "anti-encrustation" and some of the references are not directed to a cleaning method.

It is noted that the claims require bringing the cleaning agent in contact with a material and absorbing substances in this material. The cited references teach these and other claimed steps.

If the applicants consider that some specific cleaning steps and/or the use of specific exchange resins differentiate the method of the invention from the prior art, such steps and resins should be claimed. It is noted that election of species could be required in that case.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 703-308-7545. The examiner can normally be reached on Monday - Friday 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on 703-308-4333. The fax phone numbers for the organization where this application or proceeding is assigned are 703-

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305-7719 for regular communications and 703-305-7718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



Alexander Markoff  
Primary Examiner  
Art Unit 1746

am  
March 16, 2002

**ALEXANDER MARKOFF  
PRIMARY EXAMINER**